

**Figure 1  
Case 1**

**Cable Company**

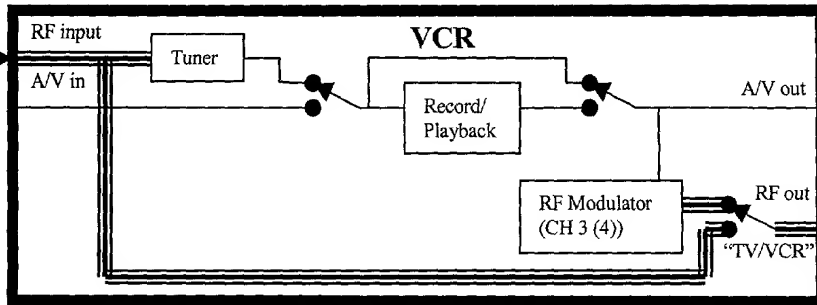
RF out

Cable box produces one RF output with all (including decrypted) channels.  
VCR is standard.  
TV has A/V inputs.  
Ability to record STB output is not required.

**Cable Box**  
(Premium Channel Decrypt)

RF input

Output  
RF with decrypted



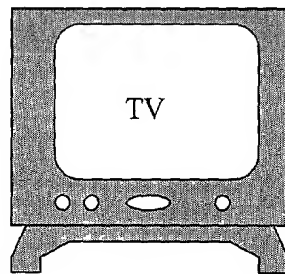
**STB**

RF input

A/V in

Other I/O

A/V out  
VGA, Audio out



TV

A/V in

RF input

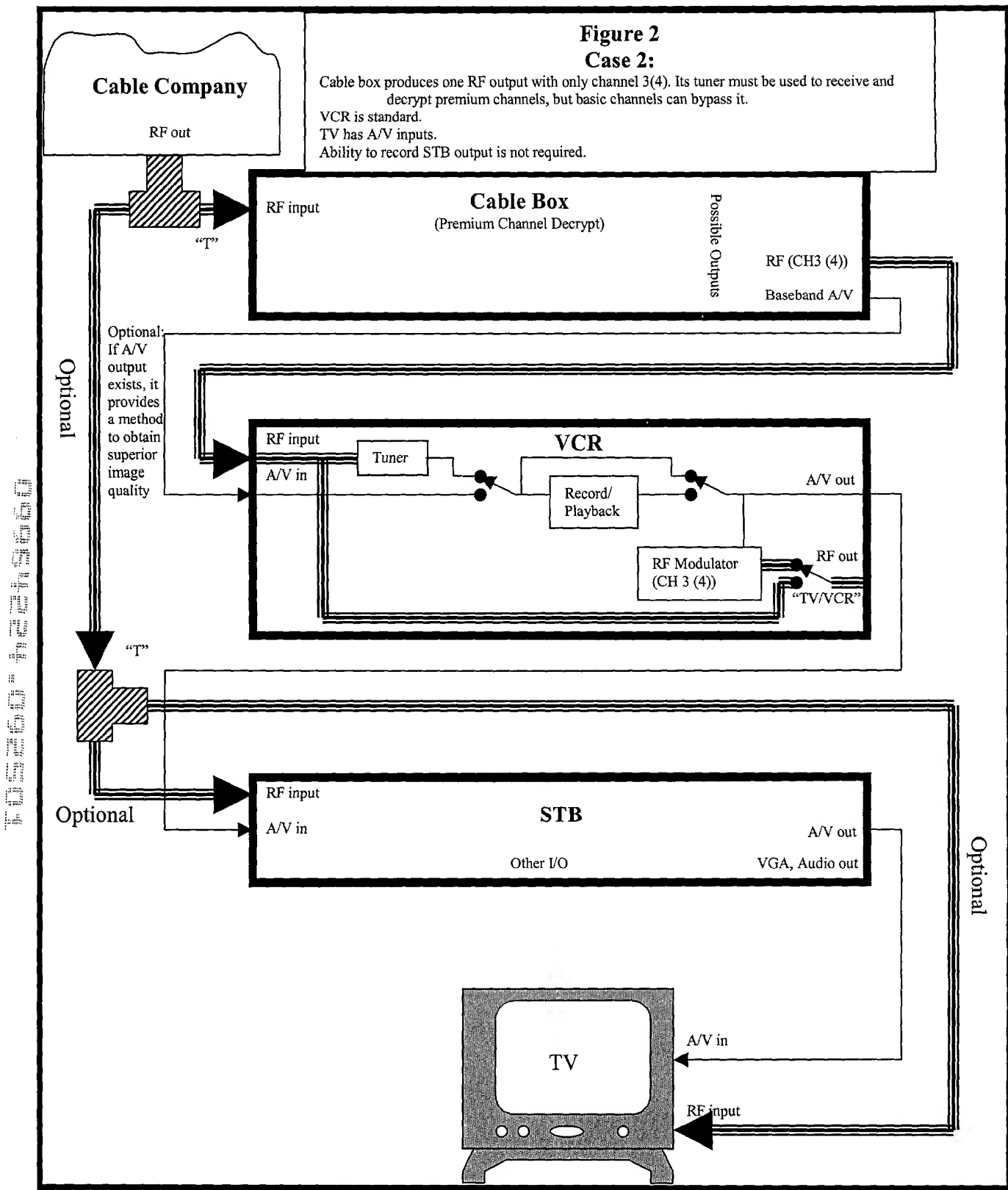
Optional

"T"

**Figure 2**

**Case 2:**

Cable box produces one RF output with only channel 3(4). Its tuner must be used to receive and decrypt premium channels, but basic channels can bypass it.  
VCR is standard.  
TV has A/V inputs.  
Ability to record STB output is not required.



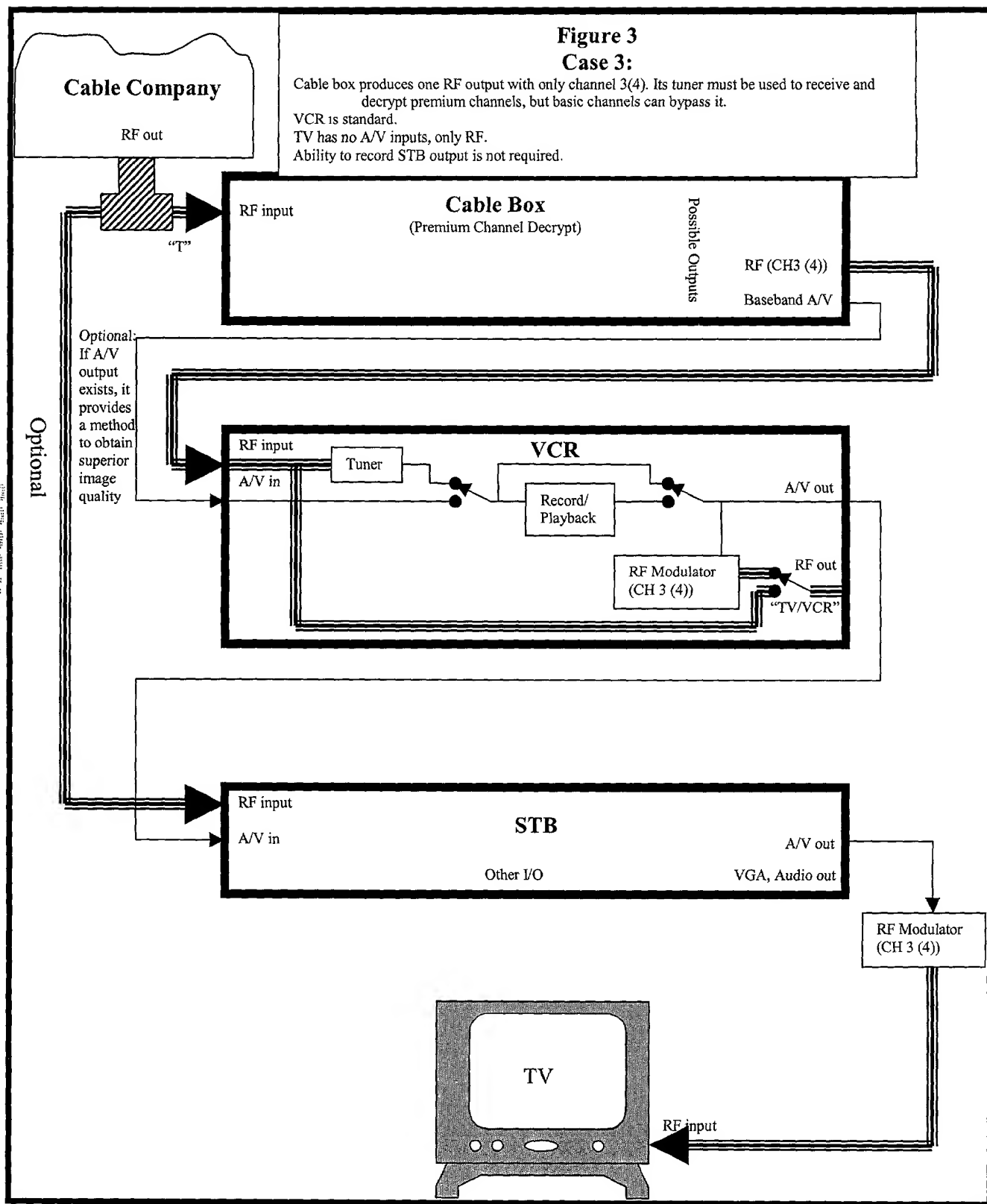
**Figure 3**

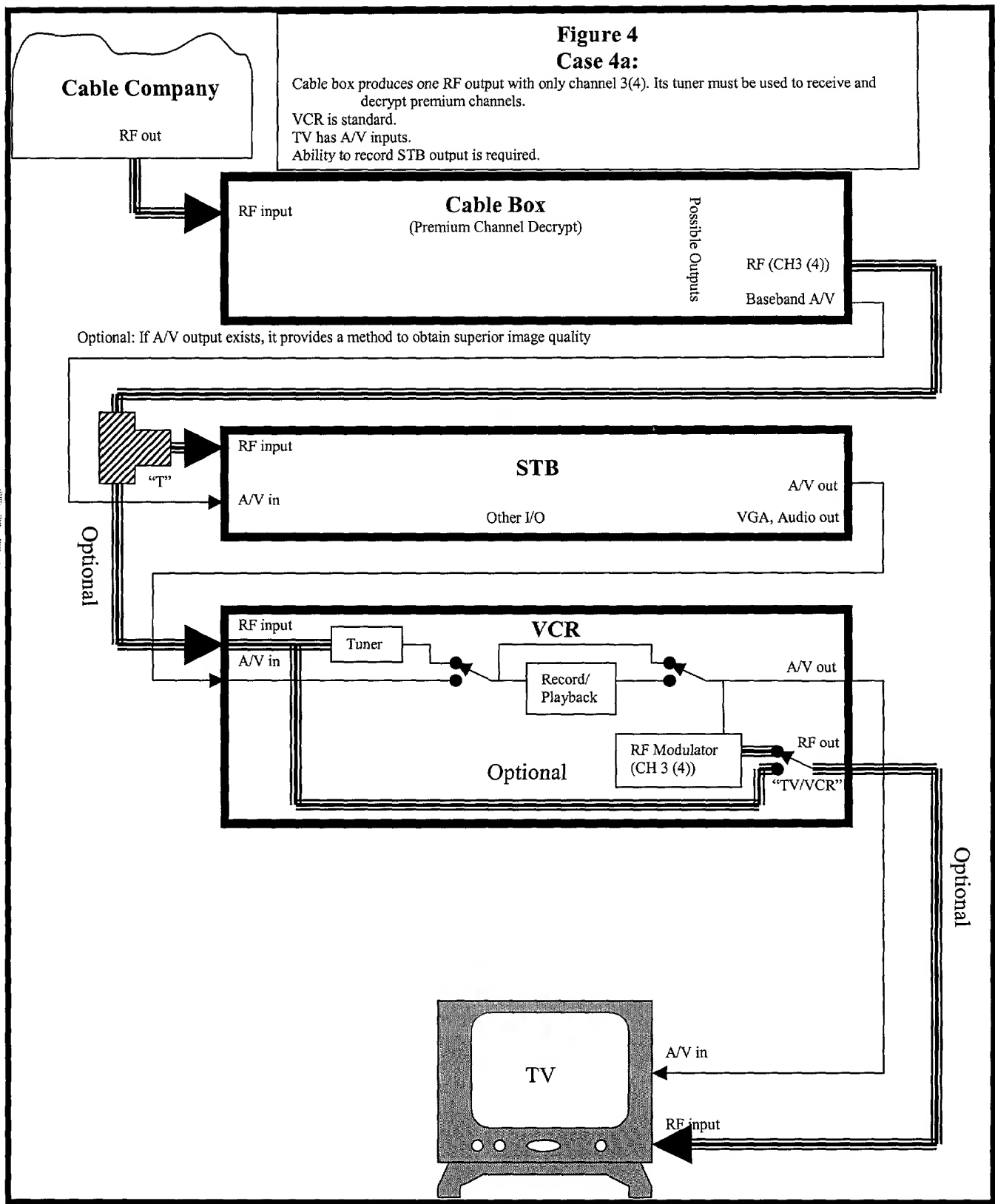
**Case 3:**

Cable box produces one RF output with only channel 3(4). Its tuner must be used to receive and decrypt premium channels, but basic channels can bypass it.  
VCR is standard.  
TV has no A/V inputs, only RF.  
Ability to record STB output is not required.

Optional: If A/V output exists, it provides a method to obtain superior image quality

Optional





**Figure 5**  
**Case 4b:**

Cable box produces A/V output (and maybe RF). Its tuner must be used to receive and decrypt premium channels, but basic channels can bypass it.  
VCR is standard.  
TV has A/V inputs.  
Ability to record STB output is required.

**Cable Company**

RF out

RF input

**Cable Box**

(Premium Channel Decrypt)

Possible Outputs

RF (CH3 (4))

Baseband A/V

If A/V output exists, it provides a method to obtain superior image quality AND allow bypass of cable box.

RF input

**STB**

A/V in

Other I/O

A/V out

VGA, Audio out

Optional

RF input

Tuner

**VCR**

Record/  
Playback

A/V out

Optional

RF Modulator  
(CH 3 (4))

RF out

"TV/VCR"

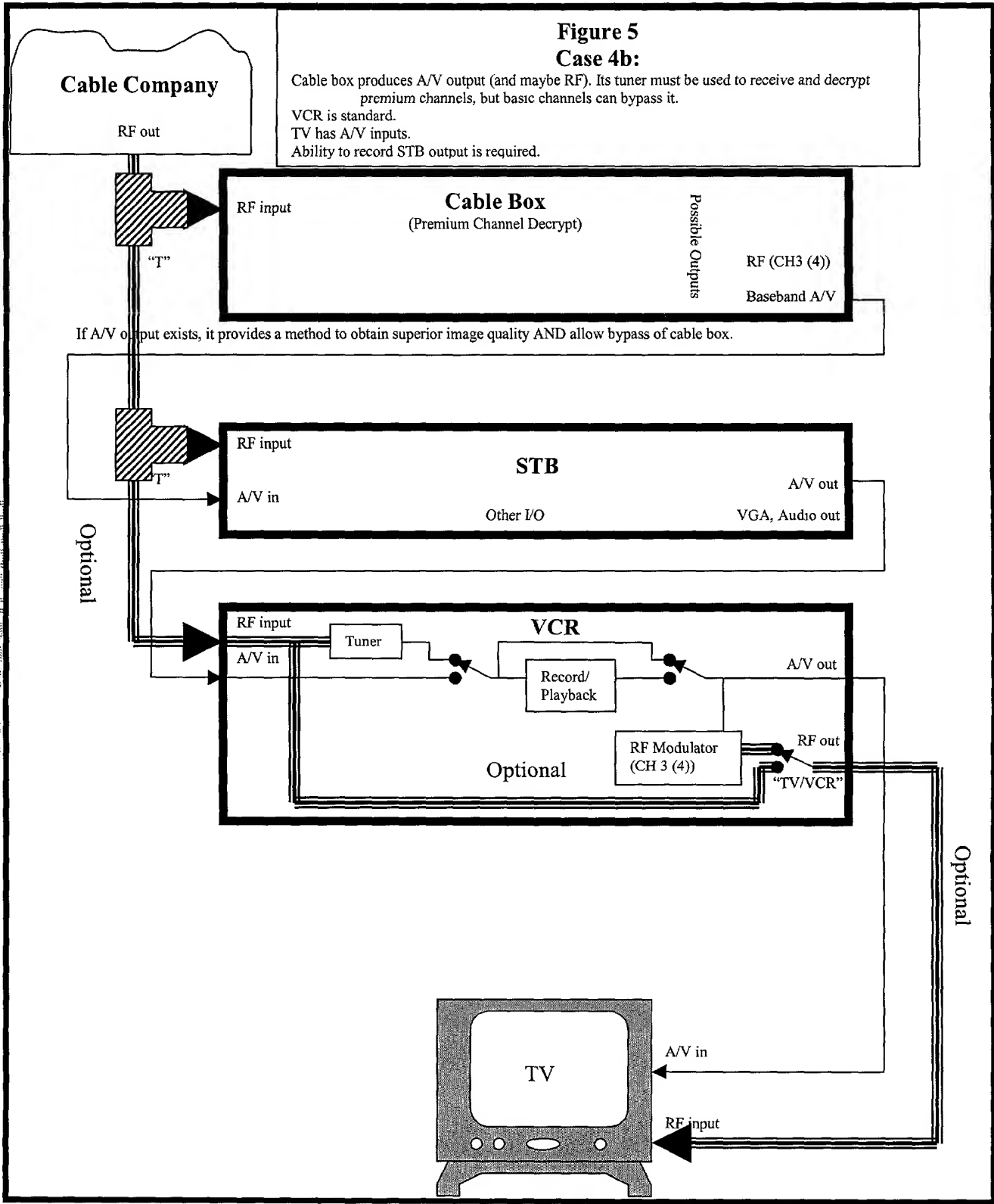
**TV**

A/V in

RF input

Optional

Optional



**Figure 6**

**Case 4c:**

Cable box produces one RF output with only channel 3(4). Its tuner must be used to receive and decrypt premium channels, but basic channels can bypass it.

VCR is standard.

TV has A/V inputs.

Ability to record STB output is required.

**Cable Company**

RF out



RF input

**Cable Box**

(Premium Channel Decrypt)

Possible Outputs

RF (CH3 (4))

Baseband A/V

If A/V output exists, it provides a method to obtain superior image quality AND allow bypass of cable box.



RF input

**STB**

A/V in

Other I/O

A/V out

VGA, Audio out

Optional

RF input

Tuner

**VCR**

Record/  
Playback

A/V out

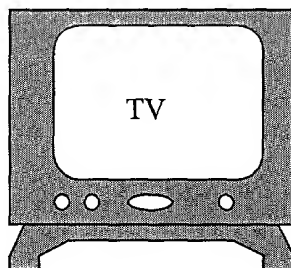
Optional

RF Modulator  
(CH 3 (4))

RF out

"TV/VCR"

Optional



**TV**

A/V in

RF input

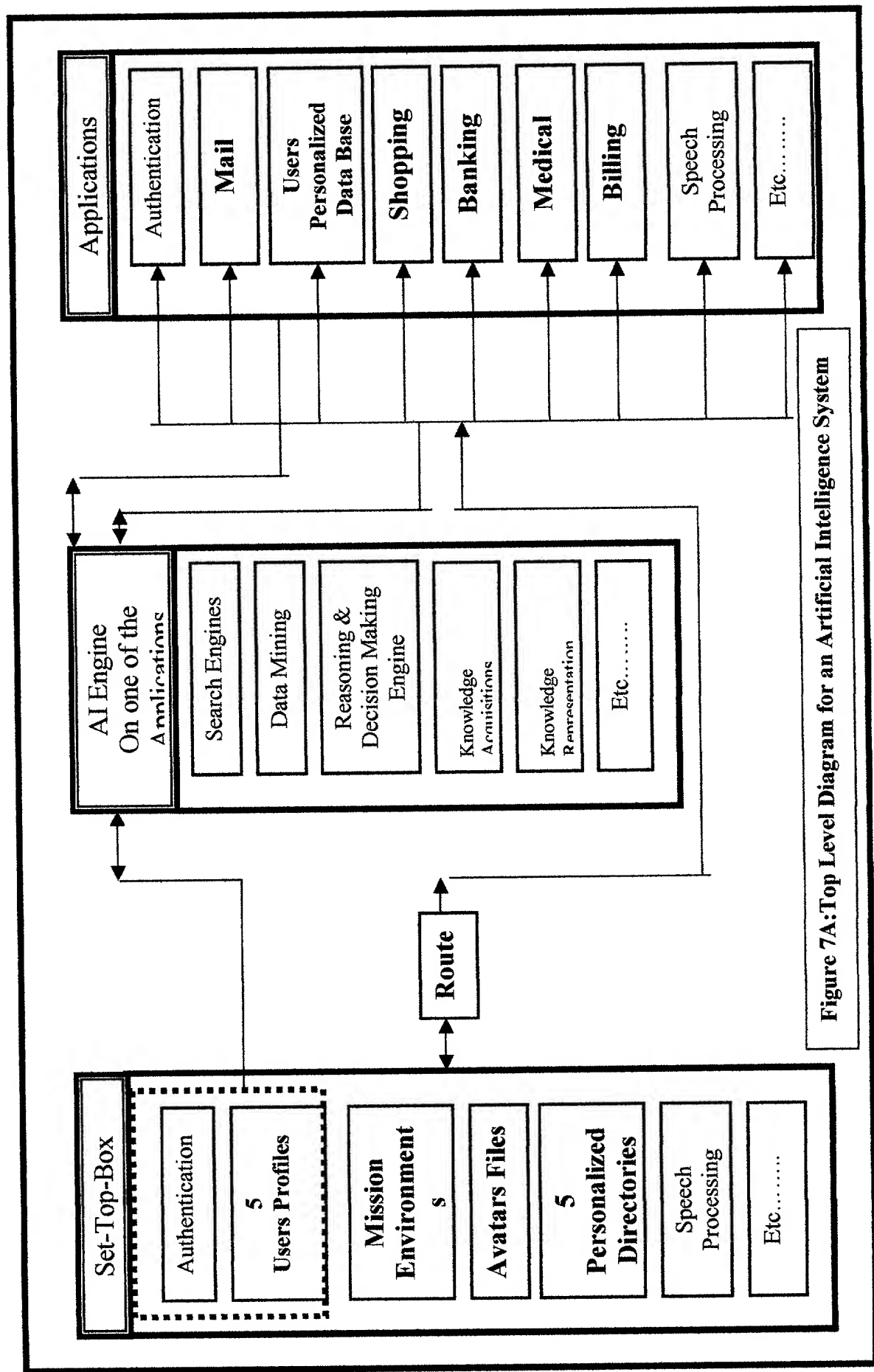


Figure 7A: Top Level Diagram for an Artificial Intelligence System

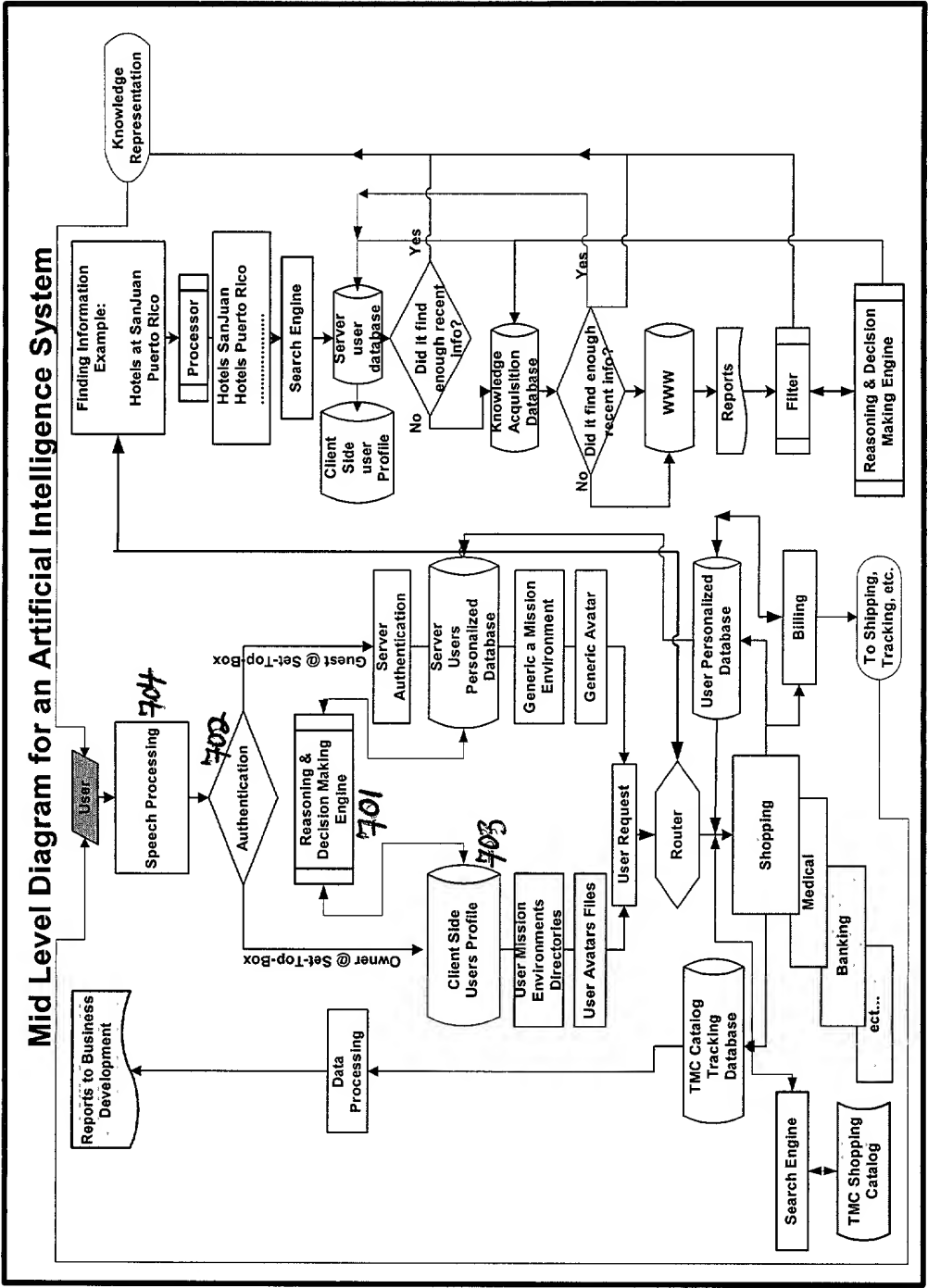
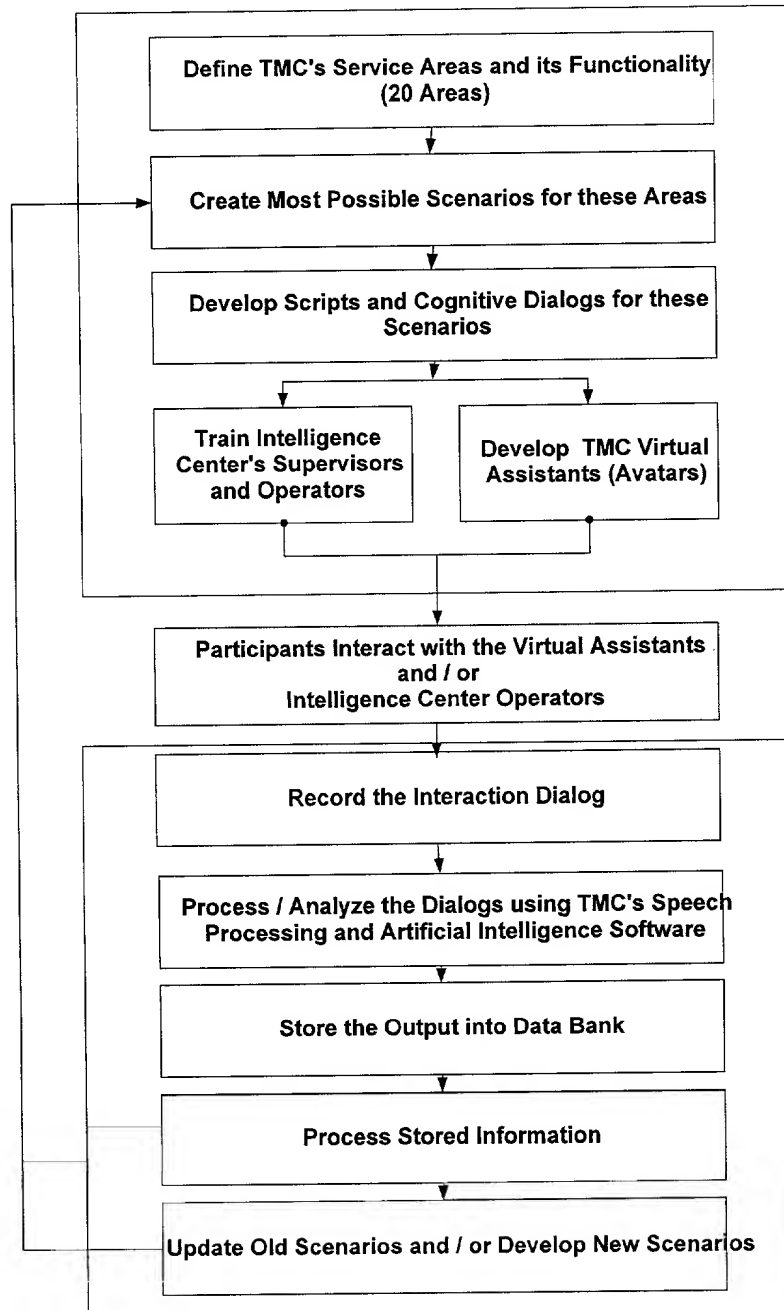


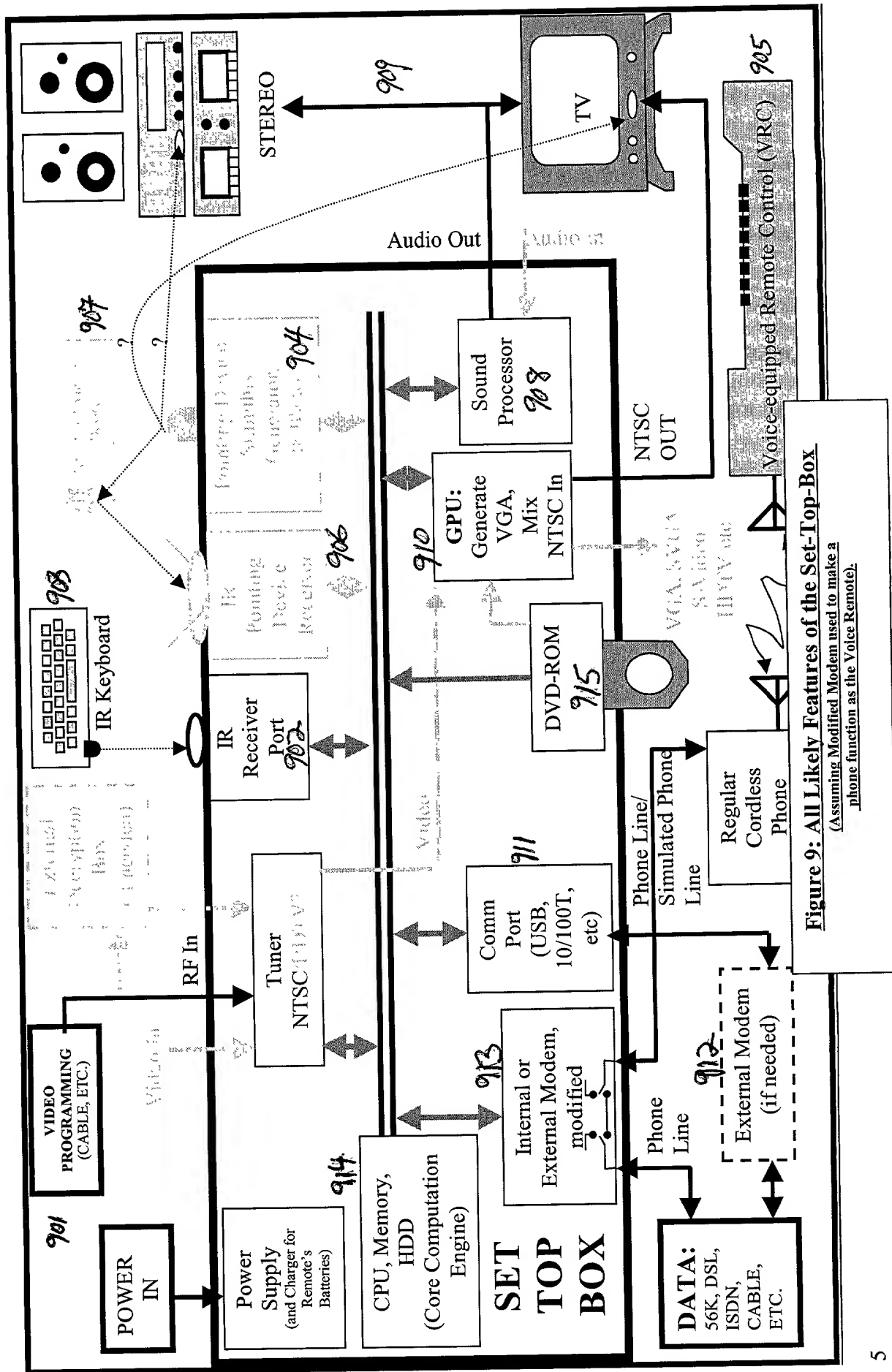
Figure 7B: Mid Level Diagram for an Artificial Intelligence



# **Top Level Diagram for TMC's Intelligence Center**

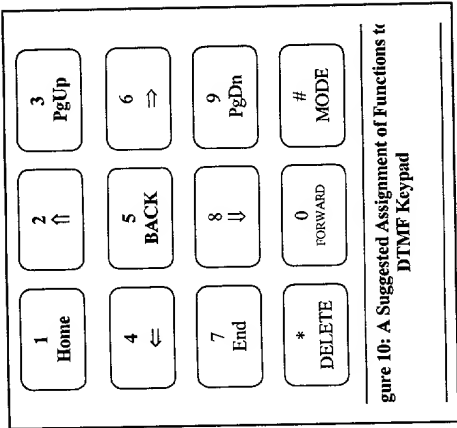


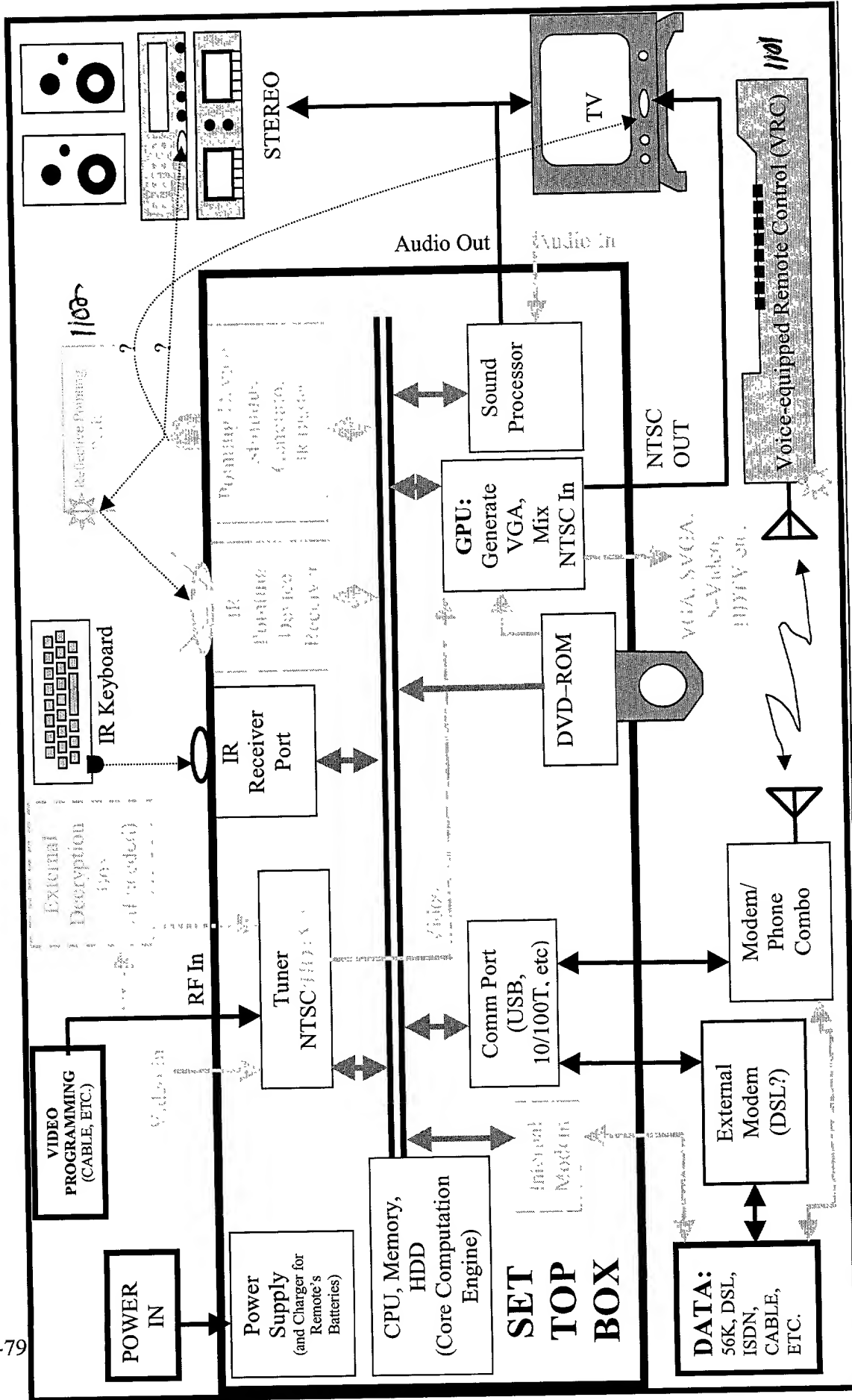
**Figure 8: Top Level Diagram for TMC Intelligence Center**



**Figure 9: All Likely Features of the Set-Top-Box**

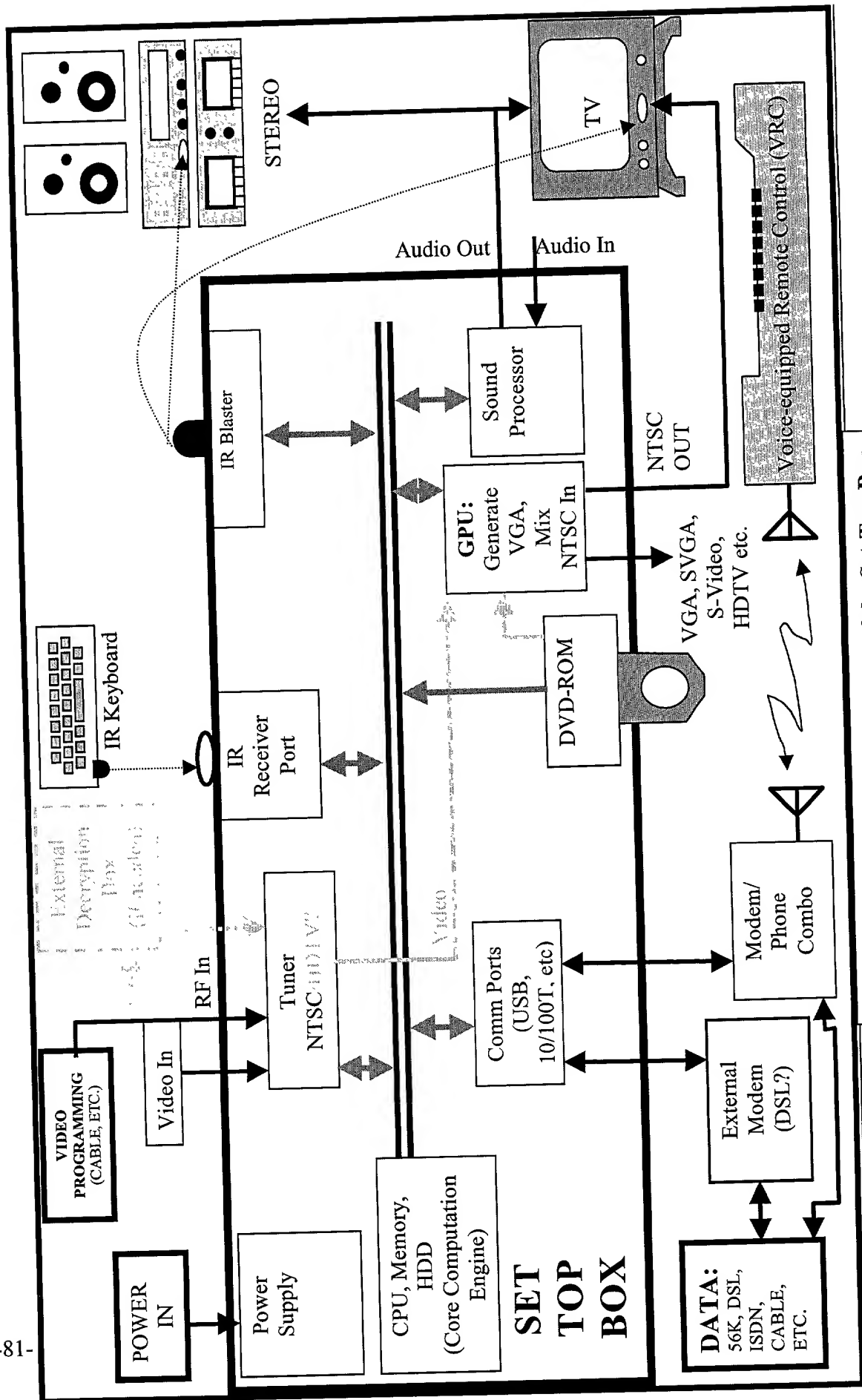
(Assuming Modified Modem used to make a phone function as the Voice Remote).





**Figure 11: All Likely Features of the Set-Top-Box**  
(Assuming Special Phone Used as the Voice Remote).





**Figure 13: Preferred Configuration of the Set-Top-Box**  
(Assuming Special Phone Used as the Voice Remote).

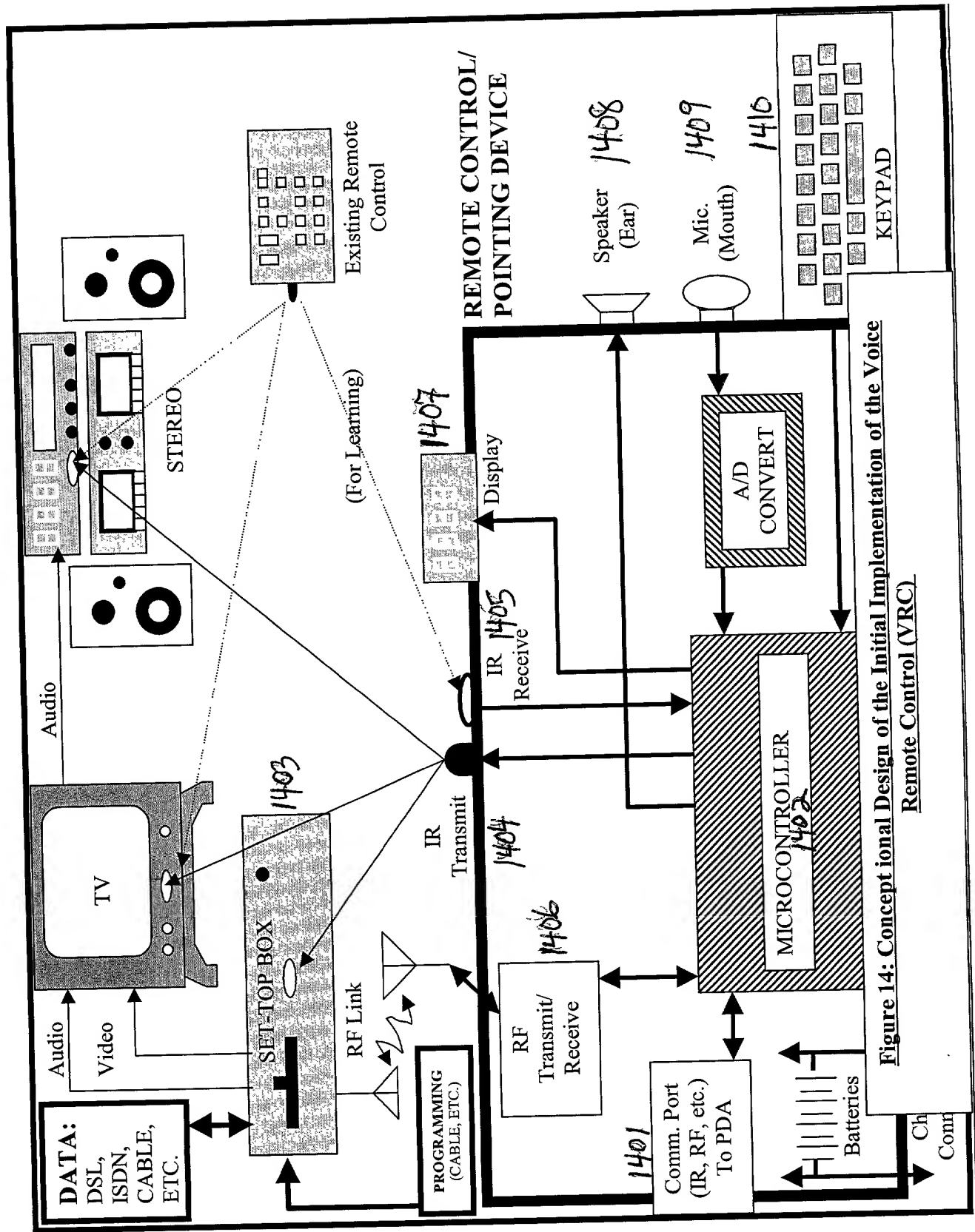


Figure 14: Conceptual Design of the Initial Implementation of the Voice Remote Control (VRC)

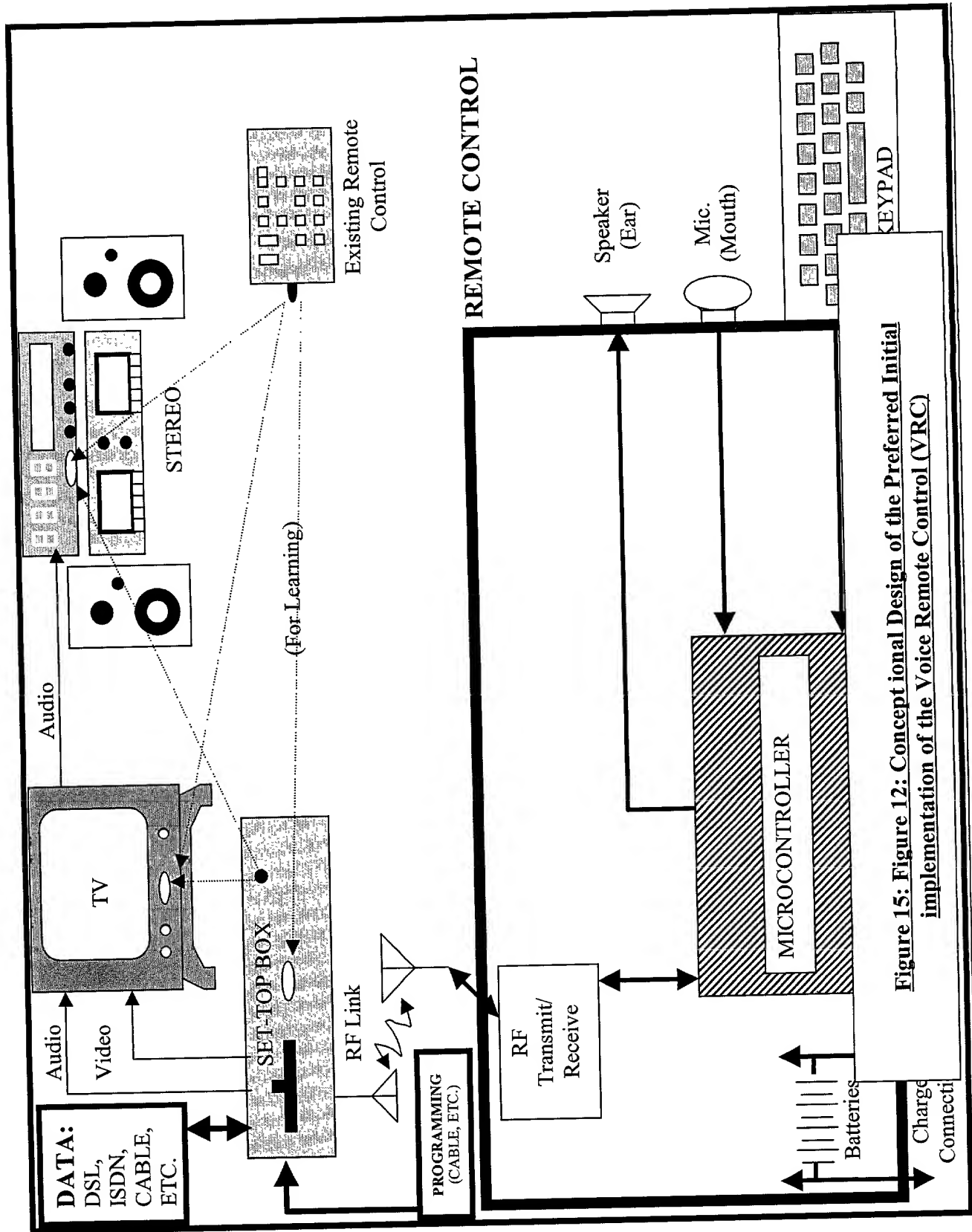
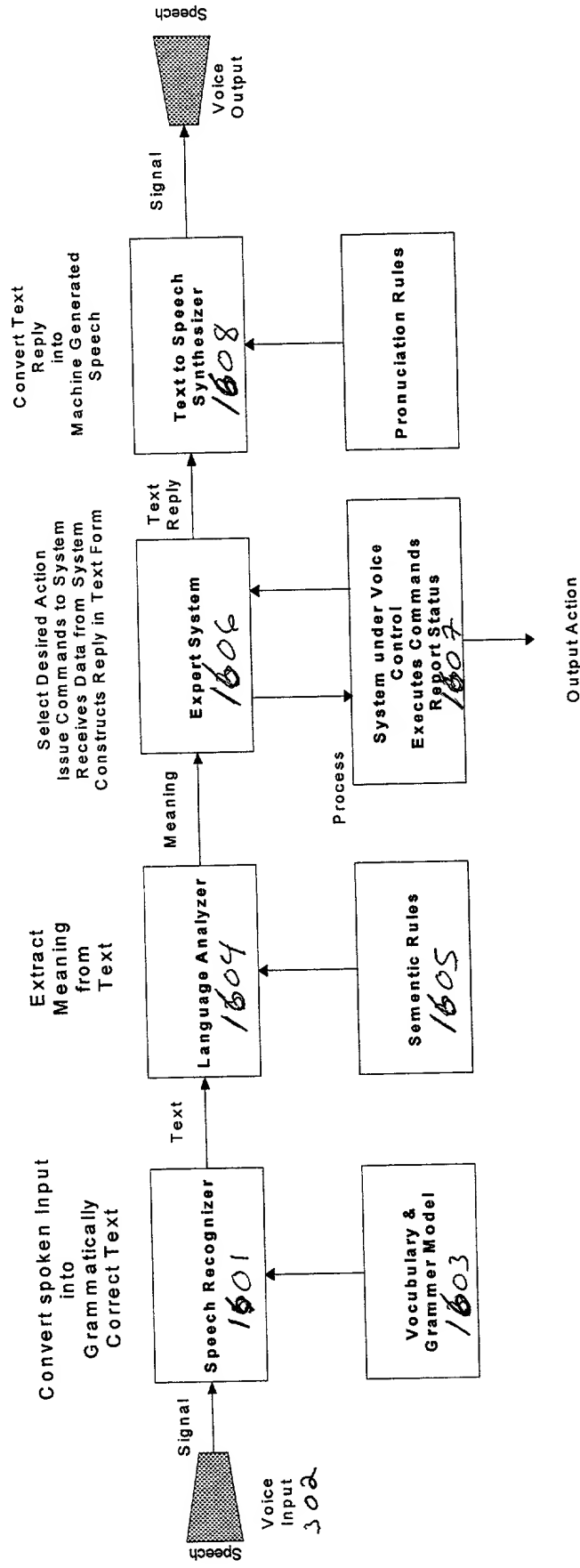


Figure 15: Figure 12: Conceptual Design of the Preferred Initial implementation of the Voice Remote Control (VRC)



Verbal Communication Interface Diagram



## Speech Recognition and Synthesis System

FIGURE 16

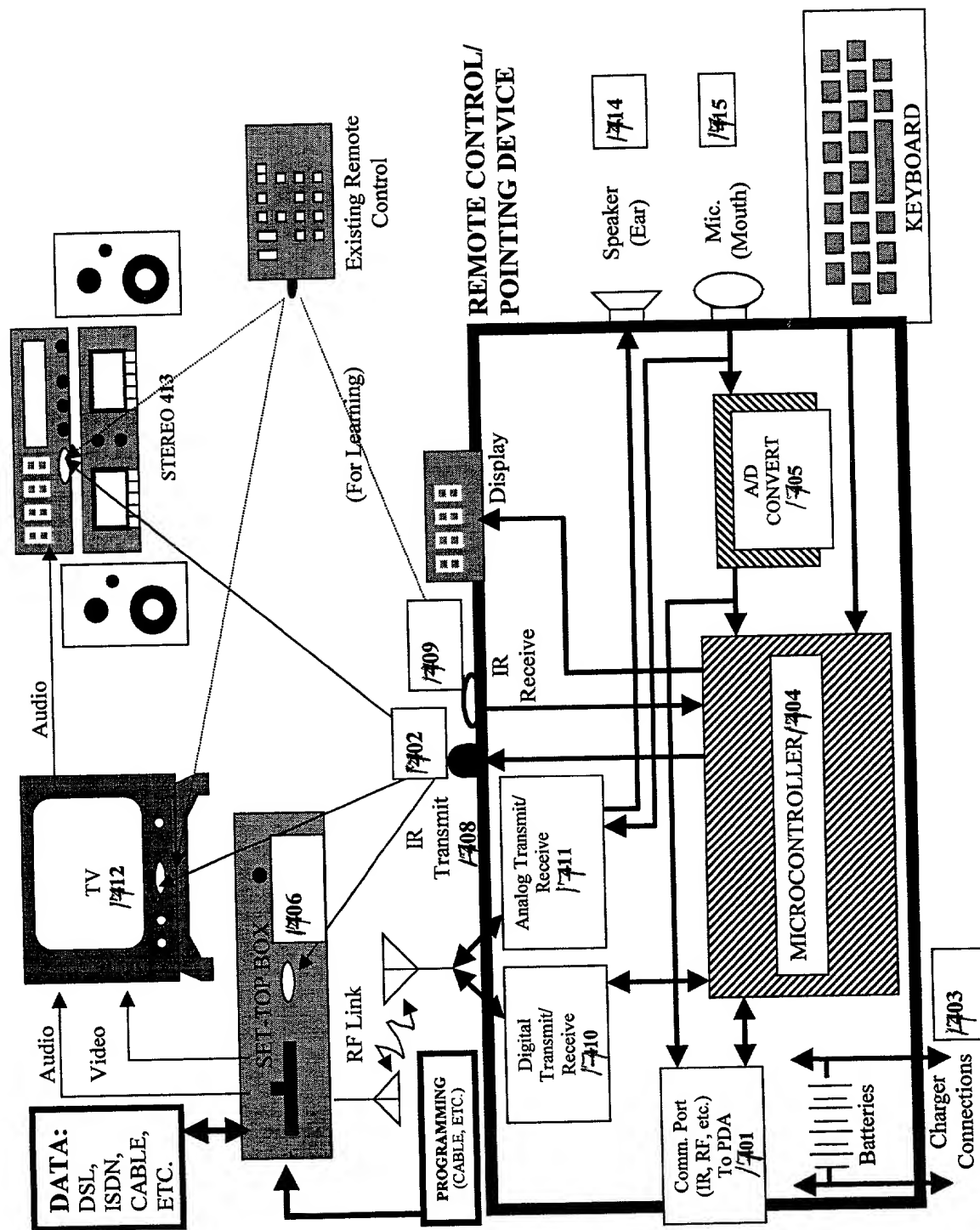


FIGURE #7

# Set-Top Device

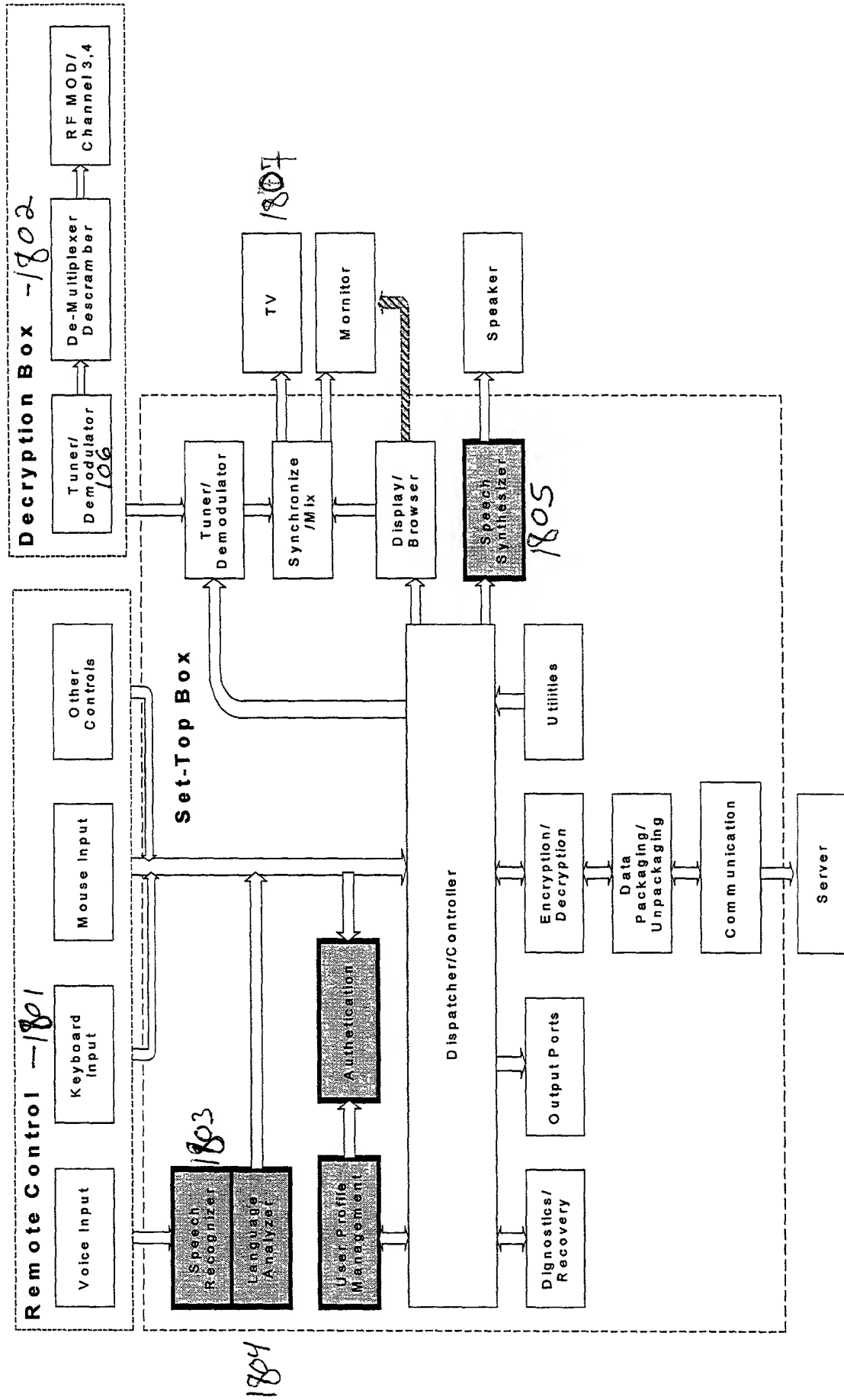


FIGURE 18